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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,367	01/21/2004	Hideyuki Kanayama	70591-016	1379

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EXAMINER	
DUNWIDDIE, MEGHAN K	

ART UNIT	PAPER NUMBER
2875	

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Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/760,367	KANAYAMA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Meghan K. Dunwiddie	2875	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4, 7, 16/7, 17/4, 17/7 is/are allowed.
- 6) ☒ Claim(s) See Continuation Sheet is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>1/21/04 &amp; 6/2/04</u> .  | 6) <input type="checkbox"/> Other: ____.                                    |

Continuation of Disposition of Claims: Claims rejected are 1-3,5,6,8-15,16/2,16/5,16/6,16/10,16/11,16/14,16/15,17/1-17/3,17/5,17/6,17/8-17/15 and 18.

### **DETAILED ACTION**

This Office Action is a Non-Final Rejection in response to the application filed on January 22, 2003 by **Kanayama et al.**

#### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### ***Information Disclosure Statement***

2. The information disclosure statements (IDS) submitted on January 21, 2004 and June 2, 2004 are in compliance with the provisions of 37 CFR 1.97, and accordingly, have been considered by the examiner.

#### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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4. Claims 1-3, 5, 6, 8, 10, 12-15, 16/2, 16/5, 16/6, 16/10, 16/14, 16/15, 17/1-17/3, 17/5, 17/6, 17/8, 17/10, 17/12-17/15, and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by **Kim** et al. (US 2005/0013132).

5. In reference to Claim 1, **Kim** et al. shows an illuminating device [Figure 11: (68)] comprising:

- a white light source [Figure 11: (43)], and an auxiliary light source [Figure 11: (60)] emitting light having a wavelength component which is considered to be insufficient from the viewpoint of color reproduction in the white light source [Figure 11: (43)],
- Wherein the white light source [Figure 11: (43)] and the auxiliary light source [Figure 11: (60)] and light from said auxiliary light source [Figure 11: (60)] are arranged such that their respective optical axes cross each other [See Figure 11],
- And light mixing means [Figure 11: (66)] for mixing light from said white light source [Figure 11: (43)] and light from said auxiliary light source [Figure 11: (60)] and emitting the mixed lights is provided at the position where the optical axes cross each other [See Figure 11].

6. In reference to Claim 2, **Kim** et al. shows:

- Said auxiliary light source [Figure 11: (60)] has a plurality of solid-state light sources [See page 3 paragraph [0053] lines 4-5 in reference to Figure 15: (80a and 80b)] respectively emitting parallel lights arranged therein,

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- And an optical integrator [Figure 11: (44)] for preventing the lights respectively emitted from the solid-state light sources [See page 3 paragraph [0053] lines 4-5 in reference to Figure 15: (80a and 80b)] from being introduced in a nonuniform state onto an object to be illuminated [Figure 24: (353)] is provided on the light exit side [Figure 11: (66a)] of said light mixing means [Figure 11: (66)].

7. In reference to Claim 3, **Kim et al.** shows an illuminating device [Figure 11: (68)] comprising:

- A white light source [Figure 11: (43)],
- And an auxiliary light source [Figure 11: (60)] emitting light having a wavelength component which is considered to be insufficient from the viewpoint of color reproduction in the white light source [Figure 11: (43)],
- Wherein used as the auxiliary light source is one emitting only red light in a predetermined wavelength range [See page 2-3 paragraph [0044] lines 6-10],
- The auxiliary light source [Figure 11: (60)] is arranged around a light emission area of said white light source [Figure 11: (43)],
- And there is provided an optical integrator [Figure 11: (44)] for preventing the lights respectively emitted from the light sources [Figure 11: (43) and (60)] being introduced in a nonuniform state onto an object to be illuminated [Figure 24: (353)].

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8. In reference to Claim 5, **Kim et al.** shows:

- A pair of fly's eye lenses [Figure 11: (44a and 44b)] is provided as said optical integrator [Figure 11: (44)],
- And each of the solid-state light sources [See page 3 paragraph [0053] lines 4-5 in reference to Figure 15: (80a and 80b)] and each of lenses composing the pair of fly's eye lenses [Figure 11: (44a and 44b)] correspond to each other.

9. In reference to Claim 6, **Kim et al.** shows:

- Said auxiliary light source [Figure 11: (60)] has a plurality of solid-state light sources [See page 3 paragraph [0053] lines 4-5 in reference to Figure 15: (80a and 80b)] respectively emitting parallel lights arranged therein,
- A pair of fly's eye lenses [Figure 11: (44a and 44b)] is provided as said optical integrator [Figure 11: (44)],
- And each of the solid-state light sources [See page 3 paragraph [0053] lines 4-5 in reference to Figure 15: (80a and 80b)] and each of lenses composing the pair of fly's eye lenses [Figure 11: (44 a and 44b)] correspond to each other.

10. In reference to Claim 8, **Kim et al.** shows an illuminating device [Figure 11: (68)] comprising:

- A white light source [Figure 11: (43)] comprising a concave reflecting element [Figure 11: (45)], and an auxiliary light source [Figure 11: (60)] emitting light

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having a wavelength component which is considered to be insufficient from the viewpoint of color reproduction in the white light source [Figure 11: (43)],

- Wherein the light emitted from said auxiliary light source [Figure 11: (60)] is condensed in the vicinity of a light emitting point of said white light source [Figure 11: (43)].

11. In reference to Claim 10, **Kim et al.** shows:

- Said auxiliary light source [Figure 1: (60)] has a plurality of solid-state light sources [See page 3 paragraph [0053] lines 4-5 in reference to Figure 15: (80a and 80b)] arranged therein,
- And each of the solid-state light sources [See page 3 paragraph [0053] lines 4-5 in reference to Figure 15: (80a and 80b)] has a condenser element [Figure 24: (341)].

12. In reference to Claim 12, **Kim et al.** shows an illuminating light source [Figure 11: (68)] comprising:

- A first light source [Figure 11: (43)] and a second light source [Figure 11: (60)] respectively emitting nearly parallel lights [See Figure 11],
- And an optical member [Figure 11: (44)] having a first optical element [Figure 11: (44a)] for introducing the light emitted from said first light source [Figure 11: (43)] in a particular direction and a second optical element [Figure 11: (44b)] for



introducing the light emitted from the second light source [Figure 11: (60)] in a direction parallel to said particular direction alternately arranged therein,

- A white light source being provided as said first light source [Figure 11: (43)],
- And an auxiliary light source [Figure 11: (60)] emitting light having a wavelength component which is considered to be insufficient from the viewpoint of color reproduction in said white light source [Figure 11: (43)] being provided as said second light source [Figure 11: (60)].

13. In reference to Claim 13, **Kim et al.** shows an illuminating device [Figure 13: (78)] comprising:

- A first light source emitting nearly parallel lights [Figure 13: (43)],
- An optical member [Figure 13: (44)] having a plurality of optical elements [Figure 13: (44a and 44b)] for respectively introducing the lights emitted from said first light source [Figure 13: (43)] in particular directions formed therein with predetermined spacing [See Figure 13],
- And a second group of light sources [Figure 13: (70a and 70b)] arranged among said optical elements [Figure 13: (44a and 44b)] and respectively emitting nearly parallel lights in directions parallel to said particular directions [See Figure 13],
- A white light source being provided as said first light source [Figure 13: (43)],
- And an auxiliary light source [Figure 13: (70a and 70b)] emitting light having a wavelength component which is considered to be insufficient from the viewpoint

of color reproduction in said white light source [Figure 13: (43)] being provided as said second group of light sources [Figure 13: (70a and 70b)].

14. In reference to Claims 14 and 15, **Kim et al.** shows:

- Said auxiliary light source [Figure 11: (60)] has a plurality of solid-state light sources respectively emitting nearly parallel lights arranged therein [See page 3 paragraph [0053] lines 4-5 in reference to Figure 15: (80a and 80b)].

15. In reference to Claims 16/2, 16/5, 16/6, 16/10, 16/14, and 16/15, **Kim et al.** shows an illuminating device [Figure 11: (68)] wherein:

- There are provided as said solid-state light sources [See page 3 paragraph [0053] lines 4-5 in reference to Figure 15: (80a and 80b)] solid-state light sources respectively emitting lights having different wavelengths [See page 3 paragraph [0046] lines 1-3],
- And there is provided means for driving each of the solid-state light sources [See page 3 paragraph [0053] lines 4-5 in reference to Figure 15: (80a and 80b)] to selectively emit the light.

16. In reference to Claims 17/1-17/3, 17/5, 17/6, 17/8, 17/10, 17/12-17/15, and 18, **Kim et al.** shows a projection type video display apparatus [Figure 24]:

- That modulates light emitted from an illuminating device [Figure 24: (231)] using a light valve [Figure 24: (347)] and projects the modulated light.

***Claim Rejections - 35 USC § 103***

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claims 9, 11, 16/11, 17/9, and 17/11 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kim et al.** (US 2005/0013132) in view of **Kudo** (US 5610763).

19. Regarding Claims 9, 11, 16/11, 17/9, and 17/11 **Kim et al.** shows an illuminating device [Figure 11: (68)] comprising:

- A white light source [Figure 11: (43)],
- And an auxiliary light source [Figure 11: (60)] emitting light having a wavelength component which is considered to be insufficient from the viewpoint of color reproduction in the white light source [Figure 11: (43)]
- Said auxiliary light source [Figure 1: (60)] has a plurality of solid-state light sources [See page 3 paragraph [0053] lines 4-5 in reference to Figure 15: (80a and 80b)] arranged therein,
- And each of the solid-state light sources [See page 3 paragraph [0053] lines 4-5 in reference to Figure 15: (80a and 80b)] has a condenser element [Figure 24: (341)].
- There are provided as said solid-state light sources [See page 3 paragraph [0053] lines 4-5 in reference to Figure 15: (80a and 80b)] solid-state light sources

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respectively emitting lights having different wavelengths [See page 3 paragraph [0046] lines 1-3],

- And there is provided means for driving each of the solid-state light sources [See page 3 paragraph [0053] lines 4-5 in reference to Figure 15: (80a and 80b)] to selectively emit the light.
- a projection type video display apparatus [Figure 24] that modulates light emitted from an illuminating device [Figure 24: (231)] using a light valve [Figure 24: (347)] and projects the modulated light.

20. **Kim et al.** does not show:

- Wherein light emitted from said white light source is condensed at a predetermined position,
- And a light incidence surface of a rod prism, which is an optical integrator is located at the predetermined position.

21. **Kudo** teaches:

- Wherein light emitted from said white light source [Figure 7: (1)] is condensed at a predetermined position [Figure 7: (A<sub>3</sub>)],
- And a light incidence surface of a rod prism [Figure 7: (40)], which is an optical integrator is located at the predetermined position [Figure 7: (A<sub>3</sub>)].

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22. It would have been obvious for one of ordinary skill in the art, at the time of the invention to condense the light emitted from both the white light source and the auxiliary light source as shown in **Kim** et al. at a predetermined position on the light incidence surface of a rod prism taught by **Kudo** for the purpose and advantage of converting the emitted light from perpendicular to parallel rays.

### ***Allowable Subject Matter***

23. Claims 4, 7, 16/7, 17/4, and 17/7 are allowed.

### ***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Meghan K. Dunwiddie whose telephone number is (571) 272-8543. The examiner can normally be reached on Monday through Friday 8 am-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MKD

  
Stephen Husar  
Primary Examiner